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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>05 June 2009</u>.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-8 and 10-12</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-8 and 10-12</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the corrected Request for Continued
Examination (RCE) filed June 5, 2009. Claims 1-7 and 10 are amended. Claims 11
and 12 are new. Claim 9 is cancelled. Claims 1-8 and 10-12 remain pending.

Claim Objections

Claim 5 is objected to because of the following informalities:

In claim 5 line 7, "characteristic word used refine the data processing request"
should be corrected to – characteristic word used <u>to</u> refine the data processing
request—

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 1, 2, 6, and 10-12 are rejected under 35 U.S.C. 102(b) as being
anticipated by Mattson et al. (hereinafter Mattson), United States Patent 5,303,148.

Regarding claim 1, Mattson teaches a personal information manager
comprising:

a microprocessor (see Mattson Abstract; "*speech processor*");

memory operably connected to the microprocessor and storing a database (see Mattson column 4 lines 11-34; "*the system manager 16 may enable the speech processor and a text memory means 26 to transform the verbal observations to text or words and store words generated*");

a data input device operably connected to the microprocessor and configured to receive an audio data stream and decode the received audio data stream into text (see Mattson column 4 lines 11-34; "*the physician's observations are converted from the spoken word to text*");

a dialog manager module executed by the microprocessor and having a record mode and a dialog mode, in said record mode said dialog manager configured to examine said decoded text received from said data input device to determine whether it contains an explicit or implicit data processing request, an explicit request being a request explicitly requested by a user and which is immediately passed to the microprocessor and an implicit request being a request which is implicitly specified by the user and which is queued and processed by the microprocessor in the background between explicit requests, in said dialog mode said dialog manager is configured to treat all requests as explicit data processing requests (see Mattson claim 1; explicit commands, "*a command interpreter means for converting selected ones of the electrical word signals which correspond to preselected command words into corresponding command signals*"; implicit commands, "*a volume imager which stores image data corresponding to a preselected three dimensional volumetric region of a subject and for*

withdrawing a selected fraction of the stored image data corresponding to one of an

orthogonal slice through the volumetric region, an oblique slice in the volumetric region,

and a projection of at least a portion of the volumetric region in response to the

command signals from the command interpreter means and generating corresponding

image representation signals indicative of a selected slice or projection");

an information storage/retrieval module executed by the microprocessor and

storing and retrieving data to/from said database, said information storage/retrieval

module handling implicit and explicit data processing requests specified by said dialog

manager, in said record mode and dialog manager module instructing the information

storage/retrieval module to store decoded text, excluding explicit data processing

requests, in said database (see Mattson column 4 lines 11-34; "*the system manager 16*

may enable the speech processor and a text memory means 26 to transform the verbal

observations to text or words and store words generated"); and

an output module converting text received from said dialog manager module into

speech and outputting said speech in response to a data processing request (see

Mattson column 5 lines 3-23; "*The speech synthesizer 42 is connected with the memory*

means 22 to convert the words of the stored patient history into audible signals to be

supplied to a speaker 44");

wherein said dialog manager passes implicit processing requests to said

information storage/retrieval module during periods of inactivity (see Mattson claim 1,

volume imager; "*a volume imager which stores image data corresponding to a*

preselected three dimensional volumetric region of a subject and for withdrawing a

selected fraction of the stored image data corresponding to one of an orthogonal slice through the volumetric region, an oblique slice in the volumetric region, and a projection of at least a portion of the volumetric region in response to the command signals from the command interpreter means and generating corresponding image representation signals indicative of a selected slice or projection").

Regarding claim 2, Mattson teaches that said dialog manager module identifies an explicit data processing request during said record mode by comparing said decoded text against a list of reserved words (see Mattson column 4 lines 35-54; "*A comparing means 34 compares the digitized audio signal or word with a library 36 of stored digital words*").

Regarding claim 6, Mattson teaches a global word table containing a list of all of the words stored in the database (see Mattson column 4 lines 35-54; "*A comparing means 34 compares the digitized audio signal or word with a library 36 of stored digital words*"); and

said dialog manager module examining decoded text received from said data input device to determine whether it matches to a given said word in said global word table (see Mattson column 4 lines 35-54; "*A comparing means 34 compares the digitized audio signal or word with a library 36 of stored digital words*");

wherein a request to prompt the user for clarification is queued if the decoded text does not match any word in said global word table (see Mattson column 4 lines 35-54; "*To initialize the memory, each operator is shown each command and asked to vocalize an audio input corresponding thereto*").

Claim 10 recites a personal information manager having substantially the same

limitations as the personal information manager of claim 1. Therefore, claim 10 is

rejected under the same rationale.

Claim 11 recites a personal information manager having substantially the same

limitations as the personal information manager of claim 1. Therefore, claim 11 is

rejected under the same rationale.

Claim 12 recites a personal information manager having substantially the same

limitations as the personal information manager of claim 1. Therefore, claim 12 is

rejected under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Mattson (US 5,303,148) *supra* and Dunning, United States Patent 7,162,482.

Regarding claim 3, Mattson teaches every limitation of claim 3 except that said

dialog manager module identifies an explicit data processing request during said dialog

mode by comparing said decoded text against a list of predefined data processing

requests, assigning a match score to each of said predefined data processing requests

and selecting said predefined data processing request having a highest matching score

as said explicit data processing request. Mattson teaches comparing the digitized

signal or word with a library of stored digital words (see Mattson column 4 lines 35-54),

but does not explicitly disclose how this is done internally. Dunning explicitly teaches

determining a match score to determine if an input matches a stored value (see

Dunning column 9 lines 7-13; "*Once an index has been built it can be used to identify an*

unknown signal. The unknown signal can also be broken into documents, quantized,

and grouped into words. In one embodiment of the present invention, the words in the

unknown documents can be compared to the words in the known documents in order to

find a match and identify an unknown piece of music by its tag information."). It would

have been obvious to one having ordinary skill in the art at the time the invention was

made to compare input to stored values as taught by Dunning in the invention of

Mattson in order to properly recognize if spoken commands match reserved words

stored in the database.

     Regarding claim 4, Mattson/Dunning teaches that if said highest matching score

is less than a threshold score said dialog manager module passes an instruction to said

output module to prompt the user to select a given data processing request from among

a selected number of said predefined data processing requests (see Dunning Figure 8

and column 9 lines 14-27; "*Now referring to FIG. 8, there is shown a method of forming*

a word from letters. Words are formed from a series of letters in a given document. In

one embodiment, there are two thresholds that together define whether a word is

considered "frequently appearing" in each document. The threshold values are chosen

such that the words yield an accurate, fast, and memory-efficient result of identifying an

unknown signal. The first threshold is a minimum number of appearances of a word in a

document. The first threshold is referred to as t.sub.1. In one embodiment, the second

threshold is a maximum number of appearances of a word in a document. The second

threshold is referred to as t.sub.2. A word is considered to be "frequently appearing" if

its frequency lies between the thresholds. In an alternate embodiment, only one of the

two thresholds is used.") Figure 8 shows a method of forming a word from letters.

Words are formed from a series of letters in a given document. In one embodiment,

there are two thresholds that together define whether a word is considered "frequently

appearing" in each document. The threshold values are chosen such that the words

yield an accurate, fast, and memory-efficient result of identifying an unknown signal.

The first threshold is a minimum number of appearances of a word in a document. The

first threshold is referred to as t.sub.1. In one embodiment, the second threshold is a

maximum number of appearances of a word in a document. The second threshold is

referred to as t.sub.2. A word is considered to be "frequently appearing" if its frequency

lies between the thresholds. Furthermore, depending on the threshold letter grouping is

provided to the user. It would have been obvious to one of ordinary skill in the art at the

time of the invention to combine Mattson's invention with Dunning's threshold aspect

because this would allow to effective separability and prediction.

  Regarding claim 5, Mattson/Dunning teaches that said information

storage/retrieval module passes to said dialog manager module a specified number of

data records retrieved in response to said data processing request if a number of

retrieved data records is below a threshold number and otherwise passes characteristic

words selected from said retrieved data records, and said dialog manager module

instructs said output module to prompt the user to select a given said characteristic

word used refine the data processing request (see Dunning Figure 8 and column 9 lines

14-27; "*Now referring to FIG. 8, there is shown a method of forming a word from letters.*

Words are formed from a series of letters in a given document. In one embodiment,

there are two thresholds that together define whether a word is considered "frequently

appearing" in each document. The threshold values are chosen such that the words

yield an accurate, fast, and memory-efficient result of identifying an unknown signal.

The first threshold is a minimum number of appearances of a word in a document. The

first threshold is referred to as t.sub.1. In one embodiment, the second threshold is a

maximum number of appearances of a word in a document. The second threshold is

referred to as t.sub.2. A word is considered to be "frequently appearing" if its frequency

lies between the thresholds. In an alternate embodiment, only one of the two thresholds

is used."). Applicant should duly note that it is well known in the art at the time of the

invention to provide a listing of results even if the data record retrieved is below the

threshold rather than saying the information requested was not found.

Regarding claim 7, Mattson/Dunning teaches a local word table in said

database (see Mattson column 4 lines 35-54; "*A comparing means 34 compares the*

digitized audio signal or word with a library 36 of stored digital words");

said information storage/retrieval module stores atoms of data, each said atom

having a unique identifier (see Mattson column 4 lines 35-54; "*The library 36 includes a*

plurality of digitized word forms corresponding to each selectable command"); and

said local word table containing a list of words contained in each atom of data and the number of times each word appears in a given atom (see Dunning Figures 1 and 8, wherein words are formed based on the frequency of the groups of letters);

wherein if a number of atoms matching a data retrieval request exceeds a predetermined number, said dialog manager module prompts a user to select a given characteristic word from a list of characteristic words, said characteristic words being derived from the local word tables of atoms matching said data retrieval request, said selected characteristic word being appended to a search string of the data retrieval request, thereby reducing the number of atoms matching a data retrieval request (see Dunning column 9 lines 7-13; "*Once an index has been built it can be used to identify an unknown signal. The unknown signal can also be broken into documents, quantized, and grouped into words. In one embodiment of the present invention, the words in the unknown documents can be compared to the words in the known documents in order to find a match and identify an unknown piece of music by its tag information.*", if a letter or group of letters appears within certain threshold frequency limits, then the letter or group of letters are organized to form words. Once an index has been built it can be used to identify an unknown signal. The unknown signal can also be broken into documents, quantized, and grouped into words. Furthermore, the words in the unknown documents can be compared to the words in the known documents in order to find a match and identify an unknown piece of music by its tag information). Dunning inherently discloses the claimed aspect of atomization of data content. Even if not disclosed inherently Vethe in 5,991,765 discloses the claimed aspect of atomization of data and furthermore

linking of atoms to create more complex data in the database. Applicant should duly note that it is well known in the art at the time the invention was made to show a predetermined number of results and if the number of search results exceeds the predetermined number an additional criteria is given to further refine the search result.

Regarding claim 8, Mattson/Dunning teaches that said characteristic words are derived by selecting a predetermined number of the most frequently occurring words from the local word tables of the atoms matching a data retrieval request, provided that the selected word does not already appear in the search string of the data retrieval request (see Dunning Figure 8 and column 9 lines 14-27; "*Now referring to FIG. 8, there is shown a method of forming a word from letters. Words are formed from a series of letters in a given document. In one embodiment, there are two thresholds that together define whether a word is considered "frequently appearing" in each document. The threshold values are chosen such that the words yield an accurate, fast, and memory-efficient result of identifying an unknown signal. The first threshold is a minimum number of appearances of a word in a document. The first threshold is referred to as t.sub.1. In one embodiment, the second threshold is a maximum number of appearances of a word in a document. The second threshold is referred to as t.sub.2. A word is considered to be "frequently appearing" if its frequency lies between the thresholds. In an alternate embodiment, only one of the two thresholds is used.*"). Applicant should duly note that the selected word for further refinement does appear in the search string because if it was in the search string before, it would have been searched for.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Alvesteffer whose telephone number is (571)270-1295. The examiner can normally be reached on Monday-Friday 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on (571)272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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